INTERNATIONAL SEARCH REPORT

illonal Application No

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 H04R3/00 According to International Patent Classification (IPC) or to both national classification and IPC B. FIELDS SEARCHED Minimum documentation searched (classification system followed by classification symbols) HO4R HO4H H03G HO4L IPC 7 Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched Electronic data base consulted during the International search (name of data base and, where practical, search terms used) EPO-Internal, WPI Data, PAJ C. DOCUMENTS CONSIDERED TO BE RELEVANT Relevant to claim No. Citation of document, with indication, where appropriate, of the relevant passages Category 5 1-12 ET US 2002/130834 A1 (MADARASZ RICHARD L X AL) 19 September 2002 (2002-09-19) paragraph '0037! - paragraph '0044! paragraph '0049! - paragraph '0050! paragraph '0057!; figure 1 1,7,11, WO 91/03891 A (MOTOROLA INC) X 21 March 1991 (1991-03-21) claim 4; figures 1,3 3 DE 200 11 778 U (LUCENTE RAINER) Α 13 June 2001 (2001-06-13) page 1, line 25 - page 2, line 10 US 5 778 077 A (DAVIDSON DENNIS M) Α 7 July 1998 (1998-07-07) abstract Patent family members are listed in annex. Further documents are listed in the continuation of box C. Special categories of cited documents: "T" later document published after the international filing date or priority date and not in conflict with the application but "A" document defining the general state of the art which is not considered to be of particular relevance cited to understand the principle or theory underlying the invention E earlier document but published on or after the international "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone filing date *L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such docu-O document referring to an oral disclosure, use, exhibition or ments, such combination being obvious to a person skilled other means in the art. document published prior to the international filing date but later than the priority date claimed *&* document member of the same patent family Date of mailing of the international search report Date of the actual completion of the international search 09/08/2004 30 July 2004 **Authorized officer** Name and mailing address of the ISA European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Tx. 31 651 epo nl, Fax: (+31-70) 340-3016 Fülöp, I

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT									
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